REMARKS

Claims 40 and 48 were rejected as being unpatentably obvious over Vazquez et al and Purcupile or Turner, because in the examiner's view one of ordinary skill and the art "would readily recognize(d) that the advantage of simultaneously displaying both the downhole card and the surface card with both cards having a common axis at the same scale as claimed especially in view of the fact that such an arrangement is shown in Figures 2 and 3 of Vazquez et al (see the last view in Figure 2 and the first view in Figure 3)."

Applicant has these observations regarding Vazquez, Purcupile, and Turner.

Vazquez et al. does not show a display at a pumping unit. All that Vazquez shows is a schematic illustrating a computational flow. Furthermore, there is no suggestion that the downhole card and surface card are plotted along the same positional (x-ax) scale. For example, compare Applicant's x scales for an actual example where the downhole position varies from about 0 inches to about 75 inches whereas the surface card displacement plotted a along the x-axis varies from about 0 inches to over 100 inches. This example clearly shows that Vazquez illustration in Figure 2 (last box) and in Figure 3 (first box) are simply schematic illustrations and do not suggest or imply that the surface card and the downhole cards are displayed along a common axis with common scaling. In fact, the illustrations teach away from Applicant's invention. Vazquez suggests that the downhole card is plotted to a different x-axis scale, because Vazquez shows the displacement x-axis extent of the surface card and the downhole card is the same; but that is not the case of an actual downhole pump where surface displacement due to stretch of the long rod string extending between the surface and the downhole pump.

Purcupile shows a pump unit with a display unit 80 controlled by a micro-computer 74 for displaying a surface card representative of the load versus displacement of surface components of a pumping unit. First and foremost, Purcupile never indicates where output

assembly 80 is positioned. It is likely that the motor switching circuit 92 is positioned close to motor 30 of Figure 1; but there is no direct specification in Purcupile as to where the display unit 82 is placed. Nevertheless, Purcupile does not teach simultaneous display of a surface card and a downhole card. All that Purcupile discloses is display of a surface card. There is not a suggestion, direct or indirect, of simultaneously displaying a downhole card.

Turner shows a pumping unit with a computer for generating a motor signal to turn the motor on and off. Such signals are generated according to a surface card characteristic. But there is no disclosure direct or implied of displaying a surface card on display 86. Such display unit is described in column 12, lines 15-26. Notice that displayed information includes length of the pumping cycle, average length of the last *n* number of pumping cards, fill time, etc. But there is no teaching of displaying a card, either a surface card or a downhole card.

Summing up regarding claims 40 and 48, Applicants respectfully request their allowance, because such claims are limited to:

(1) generation of a surface card and a downhole card, and display of the two cards is made on a display screen in proximity of the pump on a regular basis, and

(2) the position axis for both cards has the same scale.

None of the references show such features alone or in combination with the other references.

Claims 1, 15 and 39 have been amended such that the features mentioned above regarding Claims 40 and 48 are also included in Claims 1, 15, and 39. Such claims are allowable for the reasons discussed above.

Claim 7 is different from the other independent claims in that invention is claimed in a method where a downhole card is displayed as an output system, permanently positioned in

association with the pump on a regular and on-going basis as part of a normal operation of the method of monitoring a reciprocating pump. Neither Purcupile or Turner disclose or suggest continuously displaying a downhole card on a displaying unit that is permanently positioned at the pump. While Vazquez teaches that surface cards and downhole cards have routinely been generated in the past, Vazquez teaches nothing about displaying a downhole card at a display unit permanently positioned at the pump. Accordingly, Claim 7 defines a patentable invention, because the novel method of displaying a downhole pump card at the pump on a permanently positioned display unit is not made obvious by Purcupile's generation of a surface card (the location of such display being uncertain) or Turner's providing a display unit at the pump for providing numerical data, not graphical data at the pump. Accordingly, allowance of Claim 7 as amended is requested.

Allowance of independent claims 1, 7, 15, 39, 40 and 48 and claims dependent therefrom is respectfully requested.

Respectfully submitted,

By: _____

Gary L. Bush
Attorney for Applicant
Reg. No. 27,423

Andrews Kurth LLP
600 Travis, Suite 4200
Houston, Texas 77002
Office: 713/220-4726
Facsimile: 713/220-4285
Customer No. 23,444

Date: Sept 9, 2004